Sample S-5 (1926-1933) 1954 AF12 North China AF12

415

KETTLE COVER

286 •

PREPARING COTTON CLOTH WARP

2: Gamble S-5 (1926-1933) 1954 AF12 North China AF12

families in the six villages, but when we found that in one village all of the 770 home industry families were weaving reed mats it seemed reasonable to take a random sample of 250 families as representative of that village and its industry. That sample, plus all of the home industry families in the five other villages, made the total number of families studied 1,220. Our composite figures for the six villages are based on the 1,220 families. We have not attempted to interpolate, from the 250 family sample, figures for all of the 770 home industry families in the mat weaving village.

In size the home industry families ranged from one to 30 members with the average 5.2 persons. This was 0.4 less than the average for all families in the six villages but the difference was not unexpected. In an agricultural community the poorer and therefore the smaller sized families would more generally be the ones to supplement their income from agriculture with income from industry. Fifty-one per cent of the home industry families had less than five members. Only 6.6 per cent had 10 or more members.

The sex division was 53 per cent male, 47 per cent female. This was a higher proportion of males than the 51.4 per cent of the 5,255 families and the 51.2 per cent of the 515 families. Part of the difference again was undoubtedly due to the larger proportion of small families in the home industry group. Fifty-one per cent of the 1,220 families had less than five members as compared with 37.4 per cent in the 5,255 families and 27.8 per cent in the 515 families. Figures for the home industry families definitely indicate that there is generally a higher proportion of males in the smaller families. In one group of families, which averaged 4.1 persons per family, 56.3 per cent were males. In another group, averaging 8.1 persons per family, 50 per cent were males.

The average number of workers per family was 2.7: 1.1 males and 1.6 females. Just under 40 per cent of all the males in the home industry families were working and just over 65 per cent of the females. The ease with which spinning can be carried on as a part time occupation was apparently the principal reason for the high proportion of females working.

The number of families and individuals engaged in the different industries in the six villages shows that processing the locally grown cotton was the chief industry of the Ting Hsien area. Except for the families in the mat weaving village there were only 14 home industry families

2: Gamble S-5 (1926-1933)1954 AF12 North China AF12

that did not have one or more members working on cotton, ginning, beating, spinning, or weaving. This was only 1.5 per cent of the home industry families in the five villages. Only 12 females and 72 males in those villages were non-cotton workers, 0.6 per cent of the female workers and 5.4 per cent of the male workers. If the families in the mat weaving village are included, 80 per cent of the workers in the 1,220 families were working on cotton.

More than one industry was reported by 27 per cent of the families. There were 321 with two industries and eight with three. Ginning, spinning, and weaving was one series. Spinning, weaving leg bands, and making brooms was another.

Two kinds of work were reported by 10.5 per cent of the female workers but only 1.1 per cent of the males. None reported more than two. Spinning and weaving covered all the duplications for the 10 males and all but four of 210 duplications for the females.

The villages show an interesting concentration of industry. One village had only mat weaving. Some thread was spun in that village but it was all used in binding the mats so was not listed as a separate activity. All the bags were woven in one village. All but two of the 124 families weaving belts and leg bands lived in one village. Two-thirds of the industries reported were found in only one of the six villages. Bean curd making, cotton ginning and spinning, and cloth weaving were the only industries reported by five villages.

The items covered in our study of the 1,220 families made it possible to relate the family's land holdings to the size of the family, sex distribution, number of workers, and the proportion of the males and females working. The figures are given in Table 33.

Small land holdings were the rule. Eleven per cent of the families had no land and 82.2 per cent had less than 25 mu. Less than 1.0 per cent had 100 or more mu. As the amount of land held by the family increased the size of the average family generally increased. It was 4.1 persons for the landless families and 14.1 persons for those with 75–99 mu. As mentioned above the proportion of males decreased as the amount of land and the size of the family increased.

The average number of male workers per family did not change appreciably except in the highest group. Generally it was about 1.0 per family. In the 100 mu group, however, the average was only 0.1 male worker per family. For the females the average number of workers per

2. Gamble S-5 (1926-1933)1954 AF12 North China AF12

from damage and theft. Our field report said that the protection was effective and encouraged the villagers to plant trees in the village and on some 200 mu of land that were too sandy for farming, but it did not state how the work was financed or how long it was continued.

The village Agriculture and Forestry Society was organized in 1913. Mr. Mi Chu-wu and four assistants were the board. The society included in its program the promotion of well digging, deeper plowing, the use of more fertilizer, the planting of trees, and the planting of more cotton. The society also took over the crop watching program.

In 1908 a pest of worms attacked the fields just before the harvest. The farmers were inclined to do nothing because they believed the gods sent the worms as a punishment, but Mr. Mi Ch'un-ming persuaded the villagers to join together to catch and kill the worms. In 1915, when locusts were found north of the hsien city, the Chai Ch'eng farmers formed the Insect Destroying Society. The first meeting was attended by over one hundred persons. A chairman, four secretaries, and eight temporary officers were elected. An annual meeting was held during the summer to discuss how to get rid of any locusts that might appear. The villagers were advised how to clean and take care of their farms so that the locusts could be kept down.

At the time of our study it was the rule that all the village residents must help destroy pests. The village gong was rung by the managers of the society to call out the village in time of need. The regulations provided that those who were purposely absent from the meetings of the Society or from any campaign against locusts should be fined.

In discussing the efforts made to promote the village agricultural program, one of the men said "Though not much development is made, the spirit is not to be neglected".

Village Market

The village market was held on the 4th, 9th, 14th, 19th, 24th, and 29th of the lunar month. On the 14th of the 8th month, the day before the fall festival, there were 262 sellers in the food section of the market. Prices of food and other details are given in Chapter XIV.

Industrial Organization

In 1913 Mr. Mi encouraged the weavers of the village to buy a new type of iron loom to replace the old style wooden loom they had been

2:Gamble S-5 (1926-1933) 1954 AF12 North China AF12

621 using. The new style machine made it possible to weave some four or five pieces of cloth per day instead of one or two.

• 286 In 1914 the Home Industry Society was organized to continue the iron loom promotion work and to develop a program for the judging and encouragement of industrial production. It was reported that the villagers bought some 60 of the new looms. The people felt the campaign had been so successful that they presented a medal to Mr. Mi for his work on the program.

After the new looms were well established Mr. Mi encouraged the village to engage some special weaving teachers who could teach additional people how to weave and also improve the quality of the output. The necessary funds for the teachers were to be raised by the society.

In 1923 sock knitting machines were introduced in Chai Ch'eng. At the time of our study five families had them.

Road Repair

491 621 In 1914 the village roads were in such poor shape and the drainage to the east and south was so poor that the roads were apt to be washed away in the summer rains. At the suggestion of the village heads $200 was taken from the village funds and used for the repair of the roads. The leaders in the eight districts were directed to inspect the roads and persuade the residents to repair them. The regulations provided that, if the roads were in very poor condition, the whole village should plan to repair them. Regulations were also adopted to prevent the storing of fertilizer, fuel, and other things in the streets.

Sanitation Office

621 364 Sun Fa-hsü, when he came to Chai Ch'eng in 1915, pointed out many unsanitary conditions in the village, fertilizer piled in the street, bad drainage, and flooding during the summer rains. The village head and elders met to discuss the sanitary conditions and decided to appoint two men for each of the five streets who should compel all the families to clean their share of the streets and to improve the sanitary conditions in their houses. Once again the roads were repaired and the planting of trees along the streets was encouraged.

At the suggestion of the village head a Sanitation Office was organized in October, 1915. A director and five secretaries were appointed and regulations were adopted. The regulations provided that every day be-

2: Gamble S-5 (1926-1933) 1954 AF 12 North China AF 12

ning and weaving, we had to depend on the knowledge of the village elders or other representative persons to give us figures for the entire village. While our figures are, of necessity, based on the estimates of many different persons and there naturally were wide variations in the figures for the different villages, the proportion of families working, the average number of workers, the amount of output, and the totals and averages seem to give a reasonable approximation of the figures for the different types of industry and for the total industrial activity of the hsien.

Prices naturally varied from month to month and from market to market. With 83 different markets in the hsien there was opportunity for considerable divergence. The prices in our tables are based on figures from the main markets, secured at different times of the year. By averaging the quotations we have tried to show the general price level at the time of our industrial study, 1931.

In order to get at least a rough classification of the different industries we have divided them into seven groups: cotton ginning, spinning and weaving; weaving of non-cotton materials; food; wood and bamboo; metals; chemical goods and processes; miscellaneous. The second group, combining as it does the weaving of wool, hair, reeds, straw, and twigs, is a very heterogeneous group. Some of the other industries might have been otherwise classified but we have not attempted any rearrangement as it would not appreciably affect the principal items shown by the group figures, the generally low average output and gain per worker, the heavy concentration in cotton, and the very small proportion of metal work.

Fifty-six per cent of the total output and 61 per cent of the village shop and home industry output was in the cotton group. According to the tables, 89.7 per cent of the home industry families and 88.7 per cent of the home industry workers were working on cotton. These latter figures are higher than actual because of the large duplication in spinning and weaving, but even if allowance is made for this, on the basis of the duplication in the 1,220 home industry families, both figures are still over 86 per cent.

Almost three-quarters of the city shop output was either chemical goods or foods. It is indicative of general industrial activity in Ting Hsien that metal products were less than 2 per cent of the hsien output.

Only five of the 46 different city industries had reported outputs of

2: Gamble S-5 (1926-1933) 1954 AF 12 North China AF 12

288 434 We could not find any reason that would explain why the 1933 index number was 167 for the annual wage, but only 86 for the daily wage; 125 for the highest ginning piece wage, but only 75 for the batting wage.

The yearly wage was 86 times the day rate in 1921, 175 times in 1927, and 167 times in 1933. During the 13 years covered by our figures there evidently was considerable improvement in the financial position of the yearly workers, at least when compared with that of the men who were paid by the day or on a piece rate basis.

Cotton Spinning

286 463 Most Ting Hsien families had a spinning wheel as part of their household equipment. Most of the girls and a few of the boys learned how to use it. The girls usually began spinning when they were 12 or 13 years old. Ordinarily it took them some four or five months to learn. During that time they practiced on "red" cotton. A new spinning wheel cost about 50 cents.

All but 16 of the 453 villages, 97.5 per cent, had at least one spinning family. One-third of the spinning villages had not more than 20. Just under two-thirds, 61 per cent, had not more than 50. Three had more than 300 and one had 360. The total number of spinning families was 28,367, an average of 65 per village. Forty-two per cent of all the village families had at least one member who was making thread.

The total number of spinners was 39,720. Almost 95 per cent of these were females, as only 2,106 male spinners were reported. Twenty-eight per cent of the females over 14 years of age were spinning. Only 55 villages reported any male spinners. All but six of those villages and all but 231 of the male spinners were in the 6th District. Three villages reported that all their spinners were males.

In most of the spinning families more than one person was doing some spinning. The average for the hsien was 1.4 per spinning family. In the 6th District it was 1.9. In eight villages, seven of which were in the 6th District, the average was over 2.5 per family while in three villages, all in the 6th District, it was three per family.

283 It was generally estimated that the women would spin one catty of thread in five days or from one market day to the next. This was borne out by the figures for the 67 spinning villages in the 1st District. There the village average per spinner ranged from 10 to 134 catties but for more than half the villages the average was between 20 and 30 catties

2: Gamble S-5 (1926-1933) 1954 . AF12 North China AF12

283 comes) more than 25 per cent of all the females and more than 38 per cent of the females over 14 yars of age were spinning. Forty-five per cent of all the females in that group of families were doing some home industry. In the entire group of families 52 per cent of the working females were spinning and it seems probable that in the wealthier families the proportion would be even higher as the women would b less apt to do the heavier work of other occupations.

283 461 It was estimated that, when working, just over one-quarter of the spinners worked less than four hours per day, just under 50 per cent worked from four to eight hours, and just under a quarter worked over eight hours a day. It was not possible to estimate the total number of days worked by the entire group, but in one village the spinners estimated that the days when they did some spinning averaged 101 days per spinner per year. Four spinners said they worked at least 250 days per year. About one-third estimated their time between 50 and 100 days, another third between 100 and 150 days. For some it was full time work. Others worked only occasionally during the winter months. The estimated spinning time averaged five hours per worker per day. The total output was 7,340 catties or just over 23 catties per spinner. As the average price for that village was 50 cents per catty, the average spinner produced thread worth $11.60 and earned a profit of some $2.30 per year. From the time and production figures it appears that the average worker processed just under one-half a catty of thread in a 10 hour day. The average gain to the worker on that amount of thread was five cents.

283 The locally spun thread was largely used for weaving so after spinning it was reeled into skeins, then washed, sometimes dyed, starched, and dried. The thread was then wound onto shuttle bobbins, or, if it was to be used for warp, onto other bobbins that were placed on the upright spindles of a wooden "bed" so that some 360 threads could be drawn off together for the warp of the local looms. If the thread was dyed the charge was two cents per catty.

Cotton Weaving

286 Cotton cloth weaving was reported by 378 villages, 83 per cent. The weaving families numbered 13,385, 20 per cent, and the weavers 59,121, just under 10 per cent of the village population.

The average number of weaving families per weaving village was 35.

2: Gamble S-5 (1926-1933)1954 : AF12 North China AF12

Almost one-quarter, 23 per cent, of the weaving villages had not more than five weaving families; 61 per cent had not more than 20; 79 per cent had not more than 50. Only four villages reported more than 200 weaving families. The largest number was 260.

Women were doing most of the weaving as 82 per cent of the weavers were females. They usually learned the art when they were 16 or 17 years of age. It generally took them about six months to acquire the skill necessary to produce salable cloth.

The value of the cloth produced totaled $2,307,000. This was 47 per cent of the total home industry output. Cloth and thread represented almost 60 per cent of the home industry total. The average cloth output was $6,100 per weaving village, $173 per family, and $59 per weaver. One village reported an output of just under $100,000. Thirty-four villages produced more than $10,000 each, 73 villages less than $1,000 each. For two villages the amount was only $81. In two villages the average per family was only $40. In three it was over $1,000. The highest average was $1,460 per family.

The gain to the workers was estimated as one-sixth of the market price. At that rate the average gain per family was $29.80, per worker $9.85.

The district figures show a very heavy concentration of cotton growing, spinning, and weaving in the 3rd and 6th Districts. Together the two districts accounted for the following per cents of the hsien totals; cotton production 83.5, ginning shops 70.4, ginning shop output 77.0, spinning families 45.2, spinners 51.9, spinning output 65.2, weaving families 36.2, weavers 31.7, and cloth output 65.

In one sample village the village elders told us that weaving had become increasingly popular with the village families during the 50 years from 1882 to 1932. The number of families living in the village increased 16 per cent during that time, but the number of weaving families increased 71 per cent, from 58 to 86 per cent of the total. Table 95 shows how the number of families and the number of weaving families changed during the 50 years.

Weaving was done on three different kinds of looms locally known as clumsy, pulling, and iron machines. The original "clumsy" loom was a wooden loom whose shuttle was thrown by hand; the "pulling" loom was an improved model in which the shuttle was thrown from shuttle boxes activated by pulling a string that hung in front of the operator.

2: Gamble S-5 (1926-1933) 1954 . AP12 North China AP12

286 The iron loom was an automatic model driven by foot power transmitted through pedals, chains, and gears. The pulling model was introduced about 1908, the iron loom about 1920. The prices of the looms were reported as "clumsy" $8.00–$10.00, improved $15–$20, iron $28. It was generally said that after the loom was set up a weaver could make one piece of cloth per day on the clumsy loom, two on the pulling loom and four on the iron loom.

The report from one village (Table 96) showed how the number and type of looms had changed in the 20 years from 1912 to 1932. The "clumsy" looms fell from 260 to 48 but the "improved" wooden models rose from 20 to 122, and the iron looms from zero to 69. The total number had fallen some 15 per cent but there had been an increase in possible production of some 90 per cent due to the use of more efficient looms. The possible daily output had risen from 300 to 570 pieces.

In the 83 weaving villages in the 3rd District there were wooden looms in 2,021 homes in 75 villages and iron looms in 173 homes in 26 villages. The iron looms were 7.9 per cent of the looms but produced 15.7 per cent of the output. The average gain per family, for those with the iron loom, was more than twice that of the families with the wood looms, $86.55 compared with $39.70.

In the 6th District there were 69 weaving villages, 54 with wood looms and 64 with iron looms. Families with iron looms were 49 per cent of the 2,648 total, but they produced 77 per cent of the output. The average gain of the iron loom families was almost three and one-half times that of those with wood looms, $91.60 compared with $26.60.

With the average number of weavers almost three per family it is easy to see why a local proverb says "There is rest for the weaver but none for the loom". In many families the weaving was carried on in shifts with the men doing the night work.

286 348 In order to overcome the cold and low humidity of the winter days, in some villages several families joined together to dig, roof, and equip a cooperative weaving cellar. One about 28 feet long, 14 feet wide, and 10 feet high would be large enough for four looms. The cellars were lighted by three or four small two foot square windows set into the south wall of the cellar. The low, above ground walls were made from sun dried earthen bricks. In the spring the cellar usually was filled in, so that the area could be used for farming and also because, if not filled in, the cellar would not be as warm and damp the following winter.

2: Gamble S-5 (1926-1933)1954 AF12 North China AF12

Several different kinds of cloth were woven in Ting Hsien but two, "big" cloth for local use and "chuang" cloth for export from the hsien, accounted for most of the output. Size of the piece was the principal difference between the two types of cloth. Both were white, both were woven with Tientsin machine spun warp and locally spun woof. There was some variation in the size of the pieces but the big cloth was generally 42 feet long and from 1′2″ to 1′3″ in width. The export cloth was about 36 feet in length and 1′2″ in width.

Other types of cloth were rough big, smooth big, and striped. Both the warp and woof of the rough big cloth were hand spun thread. For the smooth cloth they were both machine spun. A piece of rough cloth was usually 46′ x 1′4″, the smooth cloth 34′ x 1′1″. The striped cloth, striped blue and white, blue and yellow, or yellow and white, was usually 40′ x 1′2″. The yellow thread was spun from yellow cotton. The blue was locally dyed.

Prices varied from market to market but the average price per piece in 1931 was big cloth $1.80, export cloth $1.20, and striped cloth $2.30. The weaver's profit was estimated at 30 cents per piece for the big cloth and 20 cents per piece for the export cloth. Families who had big cloth woven for them supplied the thread and paid the weaver 30 cents per piece.

Big cloth was woven in 378 villages, export cloth in 203. Over 1,000,000 pieces of export cloth and 606,000 pieces of big cloth were produced in 1931. All of the export cloth was sold to the cloth stores and shipped out of Ting Hsien. Figures from the 3rd and 6th Districts indicate that about 23 per cent of the big cloth was used by the weaving families, the rest sold. Cotton cloth was a large cash item for the village families.

It was reported that there was a big decrease in spinning and weaving during the 1st month of the New Year, both because it was vacation and holiday time and because an old custom, followed in some villages, forbade the farmers' daughters to use needle and thread during the 1st moon.

Other materials woven from cotton thread were large and small gauze, waist bands, leg bands to tie trouser bottoms around the ankles, and bags of various sizes. The latter were generally woven from three or four ply thread.

2: Gamble S-5 (1926-1933) 1954 .. AF12 North China AF12

286
291 Some of the old weavers said that the weaving of the waist bands began in the 6th year of Chia Ch'ing, 1801, when the floods of the T'ang river drove many families from their homes and they had to find some way to keep from starving. Tradition says that at that time someone made a narrow loom like the ordinary cloth loom and began the weaving of the waist bands, which were 4.5 feet long and one inch wide, and the leg bands, which were 3.5 feet long and 2 inches wide.

The waist and leg bands were still woven only on the banks of the T'ang. All of the leg band weavers lived in the 6th District and 90 per cent of the waist band weavers. The other 10 per cent lived across the river in the 5th District.

286
1139 Waist band weaving was an especially prosperous occupation during the early years of the Republic for there was a large market for them in the northwest areas. Poor economic conditions in the northwest had later cut the export of waist bands by some 50 per cent. In 1931 some 70 or 80 per cent of the output was exported to other parts of China. The price of a waist band loom was only $2.50 or $3.00.

Some 90 per cent of the gauze was shipped to the northwest, where it was used for funeral clothes. The other 10 per cent was used in Ting Hsien in making bean curd.

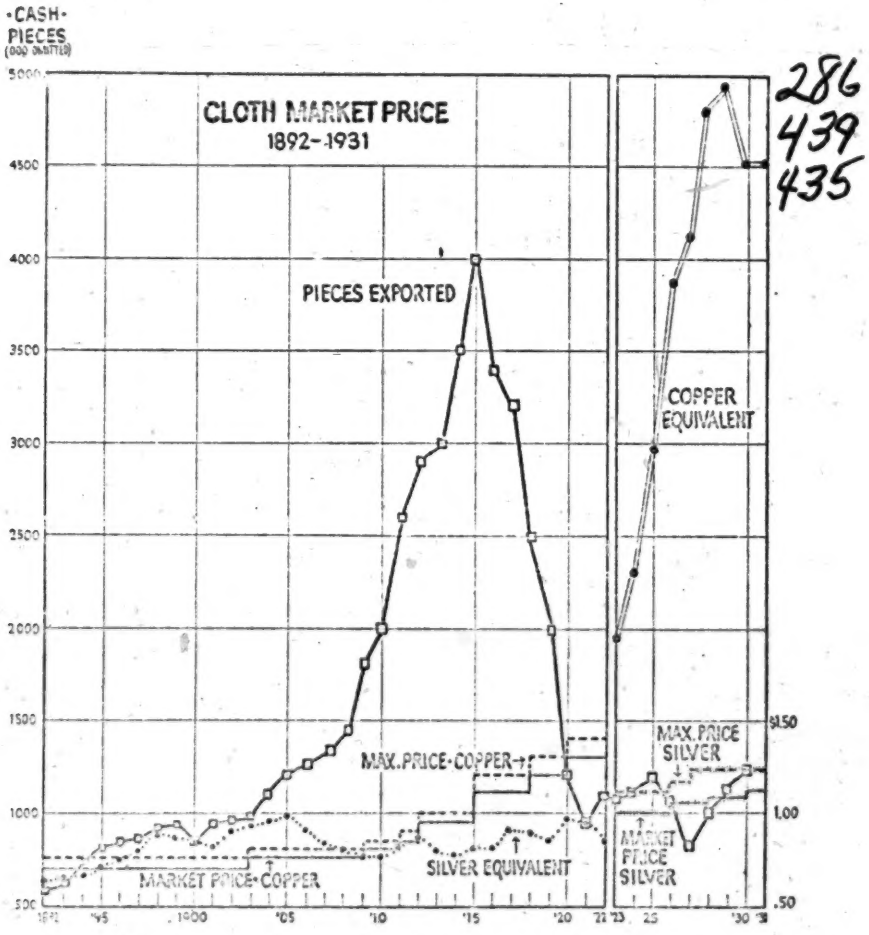
The field reports noted that the heavy cloth woven from three or four ply thread could not be made in the weaving cellars as the dampness wrinkled the cloth.

Cotton Cloth Exports

286
439
435 Records of the cloth stores, figures from the shipping records of the railroads, and the reports of men who had been in the cloth business for many years made it possible to work out a history of the market prices of the chuang (export) cloth, the maximum prices set by the cloth gild, and the number of pieces exported from Ting Hsien to other parts of China during the 40 years from 1892 through 1931. The export and production figures were apparently identical as the cloth, woven in a special size, 36′ x 1′2″, was made exclusively for export to other parts of China and was handled through the cloth markets.

In 1892 the price of the chuang cloth was 700 cash per piece. It was the same for the next 10 years. In 16 years there was only one increase. That was 50 cash, 7 per cent. In the next 12 years, 1908–1919, there were six increases. The amounts were first 50 cash, then 100, then 150,

2: Gamble S-5 (1926-1933)1954 AF12 North China AF12



286
439
435

FIGURE 25. COTTON CLOTH, COPPER AND SILVER PRICES, EXPORTS

and finally 200 cash per piece. The seven increases totaled 700 cash. The copper price doubled in 28 years (see Figure 25).

The silver equivalent of the copper price of the cloth was 62 cents per piece in 1892. The decline in the silver-copper exchange rate,[2] plus the 1903 increase in the copper price, raised the silver equivalent to 99

2. See Chapter XIII.

2: Gamble S-5 (1926-1933) 1954 AF12 North China AF12

286
439
435

cents per piece in 1905. From 1905 through 1922 it varied between 76 and 96 cents per piece. In 1922 it was 83 cents per piece. In 30 years, while the copper price had doubled, the equivalent silver price increased only one-third.

Beginning in 1923 the price of chuang cloth was quoted in terms of silver rather than copper, because of the rapid depreciation of the copper coins. The 1923 price was $1.00 per piece. In 1930 and 1931 it was $1.20. The difference of 20 cents was the total of three increases of five and 10 cents each.

In 40 years the silver price increased 94 per cent. The copper equivalent of the 1931 silver price was seven times the copper price of 1892.

The records show that the cloth gild, at its annual meeting, regularly set a maximum price for chuang cloth above which the market price was not allowed to go. Theoretically the market price could fluctuate with the condition of the market, providing it did not go above the ceiling price set by the gild. Actually the records did not show any fluctuation. From 1892 to 1927 the market price and the ceiling price changed at the same time and by the same amount, except in 1915, when the maximum price was set 100 rather than 50 cash above the market price. When the price was changed from copper to silver the ceiling price was set at $1.20 with the market price $1.00 per piece. In 1930 and 1931 the ceiling price was $1.42, the market price $1.20.

The copper ceiling price was from 5 to 9 per cent more than the reported market price. After 1922 the silver ceiling price was from 18 to 29 per cent above the market price.

While theoretically the ceiling price was the only one controlled it would appear, from the records, that actually the market price was controlled as well. The gild control of the market price is still more evident when the amount of cloth sold and exported from Ting Hsien is related to the quoted prices. The records showed that except for 1900 the number of pieces handled increased every year from 1892 to 1915, from 600,000 to 4,000,000 pieces. Six years later only 950,000 pieces were exported, a decrease of more than 75 per cent. From 1921 to 1930 the number was usually just over one million pieces. While the number of pieces exported more than doubled from 1903 to 1910, the copper price went up only 6.5 per cent, from 750 to 800 cash, and the silver equivalent went down 18.2 per cent, from 93 to 76 cents per piece. From 1910 to 1915 the number of pieces doubled again, from two to four million.

2: Gamble S-5 (1926-1933)1954 AF12 North China AF12

The copper price went up 37 per cent, from 800 to 1,100 cash per piece, but the silver equivalent rose only 5 per cent, from 76 to 80 cents.

During the six years from 1915 to 1921, the number of pieces sold went down 76.3 per cent, but during that time there were two increases in the copper price for a total of 300 cash, 27 per cent. The silver equivalent was nine cents, 11 per cent, higher in 1921 than it was in 1915. One wonders how it was that a community would see a 75 per cent decrease in demand and a sales loss of over $2,300,000 without attempting to save some of it by reducing rather than increasing prices. Even if it was spare time work the loss of the income from over a million and a half days of work could not help but be serious for any community.

Some of the loss undoubtedly was salvaged by shifting the looms to the weaving of other kinds of cloth. However, it does not seem probable that the local market could absorb any large additional amount. Unfortunately we were not able to get from the gild leaders their explanation of how it was that the price could go up in the face of a rapid decline in demand, or their estimate of the success of the weavers in shifting to other types of cloth when a large part of the market for chuang cloth disappeared. The price and output figures seem to indicate that the price of chuang cloth was very closely controlled by the cloth gild, a control made possible by the complete monopoly of the export market.

One wonders what were the influences that, after there had been a steadily increasing demand for almost a quarter century, cut the demand for chuang cloth by 50 per cent in four years and by more than 75 per cent in six years. Competition from Japanese cloth or from machine woven cloth from Tientsin might be a possible explanation, but in view of rapidly rising world prices and demand due to World War I, it hardly seems to be a probable one. We do not know of changed conditions in North China that would explain it. The floods of 1917 and the drought of 1920–21 do not seem to have been large factors. Poor economic conditions in the northwest provinces were given by one of our reports as the reason for the decline about that time of the market for waist bands.

The chuang cloth was shipped from six centers. Chuan Lu and Ch'ing Feng Tien, the two market towns in the 6th District, handled over 73 per cent of the shipments. Twenty-three per cent went from the hsien city. The business was handled by 45 cloth stores in the six centers. One had a history of 150 years. Twenty-five were less than 10

2:Gamble S-5 (1926-1933) 1954 AF12 North China AF12

439 years old. The 45 stores had 350 employees, of whom 57 were apprentices. The apprentices were being trained by 33 stores. Three of the larger 286 ones had three apprentices each. The capital of the stores ranged from $600 to some $12,000 with the average just under $4,000.

It was said that the cloth market in the city, where the city cloth 286 stores regularly did their buying, was first opened in the 31st year of Ch'ien Lung, 1766. During the winter months, the busy season for 443 the cloth weavers and merchants, the market was generally open from nine to 12 hours on market days. The usual amount of cloth handled was about 1,500 pieces. The smallest amount in 1931 was between 600 and 700 pieces, the largest about 4,000. The largest day's business in the previous 10 years was 17,000 pieces.

286 During the 10 years 1921–1930 over 10,600,000 pieces of chuang cloth 438 worth over $11,000,000 were shipped from Ting Hsien. Over 70 per cent went to Chahar, with most of the remainder going to Shansi and Suiyuan. Less than one per cent was sent to Hopei.

The cloth going to Chahar and Shansi was shipped in 50 piece bundles except for Ta T'ung. There a bale was 45 pieces. For Suiyuan the cloth was packed in 40 piece bundles except for Hsing He, which used the 50 piece bale.

There was a tax of $1.20 per bale on all shipments except those for Suiyuan. For them the rate was $1.80 per bale. Railroad freight varied from $1.50 to $2.60 per package, the shipping commission from 50 to 90 cents. The total shipping charges amounted to from six to 10 cents per piece for the Chahar and Shansi shipments and from 14 to 16 cents per piece for those sent to Suiyuan.

Some locally grown wool was made into rugs. Rugs were also made from cow hair that had been ground with a stone to remove the lime with which it had been treated, teased with a bow, and spun on the ordinary spinning wheel. The cow hair rugs were being supplanted by factory woven rugs.

Food Industries

438 Bean curd making was a hsien wide activity reported by 249 villages, 258 carried on by 735 families and 1,570 persons. It was a year round activity except for the hottest summer months. The curd was made from green or yellow beans, cotton seed oil, carbon (ashes), and brine. The beans were ground into small pieces, put to soak for five or six hours, then

2: Gamble S-5 (1926-1933)1954 AF12 North China AF12

TABLE 93. TYPES OF INDUSTRY: SHOPS, FAMILIES, WORKERS, OUTPUT

	Number	Workers	Output	Output Per Worker	Per Cent of Total
Cotton Ginning, Spinning, and Weaving					
City shops	23	72	$ 76,380	$1,060	
Village shops	316	1,244	1,811,840	1,440	
Village families	42,518	80,212	2,948,960	40	
Total or average	42,857	81,528	4,837,180	60	56.4
Weaving Hair, Reeds, Straw, Twigs, and Wool					
City shops	1	7	2,590	370	
Village shops	–	–	–	–	
Village families	2,608	4,580	484,640	110	
Total or average	2,609	4,587	487,230	110	5.7
Food					
City shops	74	259	203,760	780	
Village shops	381	998	401,440	400	
Village families	1,353	3,441	425,420	120	
Total or average	1,788	4,698	1,030,620	220	12.0
Wood and Bamboo					
City shops	21	74	28,760	390	
Village shops	713	3,547	371,440	100	
Village families	336	642	77,900	120	
Total or average	1,070	4,263	478,100	110	5.6
Metal					
City shops	20	46	11,700	250	
Village shops	56	322	126,880	390	
Village families	26	51	26,770	520	
Total or average	102	419	165,350	400	1.9
Chemical					
City shops	40	245	341,110	1,390	
Village shops	116	1,334	239,200	180	
Village families	173	594	58,810	100	
Total or average	329	2,173	639,120	290	7.5
Miscellaneous					
City shops	25	121	66,610	550	
Village shops	16	51	24,680	500	
Village families	386	909	843,000	930	
Total or average	427	1,081	934,290	860	10.9

369
472
286

[p. 313]

2:Gamble S-5 (1926-1933) 1954 AF12 North China AF12

435

TABLE 94. INDUSTRIAL WAGES[1]

Per Day		*(Per Month, cont.)*	
Eye medicine	$0.40–1.00	Tailors	9.00
Sawyers	.50	Iron	7.00
Mat sheds	.45	Seal cutters	7.00
Per Month		Copper and tin	6.00
Leather:		Cart makers	5.00
Headman	30.00	Brick kiln	4.00
Trained worker	12.00	*Per Year*	
Graduate apprentice	10.00	Cotton ginning, laborers	60–70
Bookkeeper	10.00	Noodles	60
Foreman	5.00	Felt mats	40–50
Cook	4.00	Peanut oil	30–40
Laborer	3.50	Oil	30

[1] Tips and presents generally added about $20 per year for workers and $10 for apprentices. Cost of meals was about $4.50 per month.

286
178

TABLE 95. INCREASE IN NUMBER OF FAMILIES AND FAMILIES WEAVING IN ONE VILLAGE, 1882–1932

Date	*Total Families*	*Families Weaving*	*Per Cent Weaving*
1882	155	90	58
1887	157	96	61
1892	158	110	70
1897	160	120	75
1902	162	125	77
1907	164	130	79
1912	165	130	79
1917	169	135	80
1922	172	140	81
1927	177	150	85
1932	180	154	86

TABLE 96. NUMBER AND KINDS OF LOOMS IN ONE VILLAGE, 1912–1932

Year	*Iron*	*Wood*		*Total*
		Improved	*Original*	
1912	–	20	260	280
1917	–	45	225	270
1922	15	72	168	255
1927	36	84	126	246
1932	69	122	48	239

2:Gamble S-5 (1926-1933) 1954 AF12 North China AF12

(TABLE 98 CONTINUED)

	Shops	Workers	Output	Price[1]	Per Cent Gain
		Miscellaneous			
Flint	1	5	700	.14	35
Hats	1	3	1,810		
Rope	5	15	1,410		31
Shoes	5	22	6,360		15
Stockings	4	16	14,400	.25[4]	16
	16	61	24,680		
Total	1,578	7,506[2]	2,975,480		
Average per shop		4.7	1,890		
Average per worker			400		

[1] Each, except as indicated.

[2] Females in four industries: flour mills 156, cotton ginning 144, oils 14, dyeing 3, total 317.

[3] Per catty.

[4] Per pair.

TABLE 99. VILLAGE HOME INDUSTRY: COTTON SPINNING AND WEAVING

	Villages	Families	Males	Females	Output	Price[1]	Per Cent Gain
Cloth, export	203	13,385	7,029	32,092	$1,216,390	$1.20	17
——, big	378	–	–	–	1,090,630	1.80	–
Gauze, small[3]	1	2	2	–	1,280	1.00	13
——, large	–	–	–	–	400	2.50	–
Leg bands	3	45	66	67	15,310	.08	19
Rope	2	48	40	15	3,780	.25[2]	31
Sacks, grain	8	285	251	369	32,150	1.45	33
——, money, big	1	10	10	29	1,000	2.00	25
——, money, small	1	5	5	12	200	.20	25
Spinning	437	28,367	2,106	37,613	548,560	.57[2]	21
Waistbands	5	371	301	205	39,260	.40	38
		42,518	9,810	70,402	$2,948,960		

[1] Per piece except as indicated.

[2] Per catty.

[3] Items bracketed were made by the same family.

2: Gamble S-5 (1926-1933)1954 AF12 North China AF12

Table 100. Village Home Industry: Hair, Reed, Straw, Twig, and Wool Weaving

	Villages	Families	Males	Females	Output	Price[1]	% Gain
Hair nets	1	1	–	4	$ 90	$0.02	50
Reed curtains	26	180	232	36	30,540	1.00	20
Reed mats	7	1,012	747	1,041	361,390	.70	29
Reed mat baskets	8	82	134	14	2,500	.15	47
Reed mat covers	9	106	186	4	7,490	.05	30
Straw hats	2	25	–	39	–	–	–
Straw pan covers	10	354	480	145	6,230	.25	60
Sage twig baskets	4	7	9	–	1,910	–[2]	31
Willow twig baskets	13	146	215	45	8,900	–[3]	–
Willow water baskets	12	466	654	232	54,280	.55	20
Willow winnowing and water baskets	2	165	220	10	–	–	–
Willow winnowing baskets	2	22	33	–	4,470	.50	14
Willow scoops	7	12	15	–	790	.07	42
Wool rugs	1	25	45	25	5,040	.80	25
Wool saddle quarter straps	–	5	10	5	1,010	.10	25
		2,608	2,980	1,600	$484,640		

[1] Each.

[2] Manure 10 cents, big 30, grain 80.

[3] Corn 10 cents, manure 20, cotton 30, big 40, open grain $1.00.

Table 101. Village Home Industry: Food

	Villages	Families	Males	Females	Output	Price[1]	Per Cent Gain
Bean curd	249	735	922	648	$162,610	$1.50[2]	20
Bean sauce	1	3	9	–	1,130	.09	22
Candy	2	7	22	–	3,110	.14	10
Noodles	77	165	353	59	57,330	.10	20
Vermicelli, sweet potato	94	351	1,099	107	82,680	.10	3
——, kaoliang					74,560	.15	
——, green bean					3,620	.25	
Sesame candy	4	12	25	–	6,250	.15	13
Sesame oil	51	68	100	42	12,960	.30	17
Vinegar	4	8	29	1	1,670	.04	25
Wine, date	2	2	15	–	3,500	.10	30
——, yellow	2	2	10	–	16,000	.15	27
		1,353	2,584	857	$425,420		

[1] Per catty, except as indicated.

[2] Per mould.

439
435
286

TABLE 109. EXPORT CLOTH: RETAIL PRICE, MAXIMUM GILD PRICE, AND EXPORTS, 1892–1931

Year	Average Price[1]		Maximum Price		Pieces Exported
	Copper	Silver	Copper	Silver	(000)
1892	700	$0.62	750	$0.66	600
1893		.66		.70	650
1894		.68		.73	740
1895		.71		.76	820
1896		.75		.81	830
1897		.79		.85	840
1898		.89		.96	920
1899		.88		.95	940
1900		.86		.92	850
1901		.83		.89	890
1902		.90		.97	950
1903	750	.93	800	.99	980
1904		.95		1.01	1,100
1905		.99		1.06	1,200
1906		.91		.97	1,250
1907		.84		.90	1,350
1908		.80		.85	1,450
1909	800	.76	850	.81	1,800
1910		.76		.81	2,000
1911	850	.82	900	.87	2,600
1912	950	.86	1,000	.91	2,900
1913		.79		.83	3,000
1914		.77		.81	3,500
1915	1,100	.80	1,200	.87	4,000
1916		.80		.87	3,400
1917		.91		.99	3,200
1918	1,200	.87	1,300	.94	2,500
1919		.85		.92	2,000
1920	1,400	.96	1,500	1.02	1,200
1921		.89		.95	950
1922		.83		.88	1,096
1923	1,974	1.00		1.20	1,080
1924	2,317	1.00		1.20	1,100
1925	2,896	1.00		1.20	1,172
1926	3,895	1.10		1.30	1,055
1927	4,125	1.10		1.42	810
1928	4,827	1.15		1.42	1,004
1929	4,959	1.15		1.42	1,121
1930	4,908	1.20		1.42	1,220
1931	4,908	1.20		1.42	–
					59,062

[1] Market prices were quoted in copper from 1892 through 1922, in silver thereafter.

[p. 326]

2: Gamble S-5 (1926-1933)1954 AF12 North China AF12

439
286

TABLE 110. COTTON CLOTH EXPORTS

Exports from Cloth Markets, 1921–1930

	Pieces	*Value*	*Per Cent*
Chuan Lu	4,188,000	$4,439,700	40.1
Ch'ing Feng Tien	3,535,000	3,666,000	33.1
City	2,492,900	2,550,300	23.1
Ta Hsing Chuang	278,000	284,700	2.6
Ta Hsi Chang	67,600	73,400	0.7
Hsiao Tsai T'un	41,000	47,800	0.4
	10,602,500	$11,061,900	100.0

Destination of Exports, 1921–1930

	Pieces	*Value*	*Per Cent*
Chahar	7,459,600	$7,782,400	70.4
Shansi	1,826,100	1,894,700	17.1
Suiyuan	1,280,500	1,344,400	12.1
Hopei	36,300	40,400	0.4
	10,602,500	$11,061,900	100.0

4: Burgess E-4, 5 (1926-1927) 1928 AF12 North China AF12

studied meet there, while four others meet at a well-known temple in the East City, the *Ma Shen Miao* (Temple of the Spirit of the Horse). Three guilds meet in restaurants, while three others have their headquarters in provincial halls. Two commercial guilds meet in one of the stores of their trade, while three others have no fixed place of meeting. The last mentioned include the Vegetable Merchants, who have their temporary booth in the South City, the Leather Box Makers and the Mat Tent Builders.

441 *
467 *

C. List of Forty-Two Peking Guilds Studied, with a Brief Description of their Crafts, Trades and Professions

Craft Guilds

Awning Makers—*Pu Ping Hang* (Cloth Tent Guild). Makers of awnings or tents of cloth, used in connection with wedding or funeral ceremonies, in public markets and in the fronts of shops.

467 *
286

Carpenters—*Lu Pan Sheng Hui* (Sacred Lu Pan Society). *Lu Pan* is the name of the mythological founder of the guild.[1] Workers in wood, including house builders, ordinary carpenters, and those proficient in rough wood carving such as is used in connection with ordinary house construction. The skilled carvers of wood have another guild.

467 *
335

Cloth Pasters—*Ke Pei Hang Hui* (Cloth Filling Guild Association). Those who utilize old rags to make the fillings between the outer cloth covering and the inner cloth lining of Chinese shoes. Similar filling is made use of in the making of old-style Chinese skull caps—the usual type of Chinese hat before the introduction of Western-style

467 *
295

[1] *Cf.* p. 100.

4: Burgess E-4, 5 (1926-1927) 1928 AF12 North China AF12

*441 *467 432 435

and Southern China to fix prices and wages and to standardize goods.

B. Guild Regulations

*441 *467 286

We are greatly indebted, especially to Macgowan, for the translation of the printed regulations of a great variety of guilds. Gamble has supplemented this material by the very detailed regulations of the Barbers Guild of Peking. A study of these documents shows the great variety of regulations in almost every feature of guild life, for in each case the rules are adapted to the demands of the particular craft or trade.

Macgowen gives in great detail the rules adopted in 1876 by the Wenchow Silk Weavers Union. These rules were a revision of the original rules adopted in 1842 which had fallen into disuse. A summarization of a few of the regulations follows.

Journeymen.—"A hand who is employed by one manufacturer shall not surreptitiously work for another; the penalty for transgressing is a theatrical performance and a feast for ten." The fine for stealing silk from employers is expulsion from the trade. The purchaser of such stolen goods is fined a play and a feast for over ten. "No employer shall engage a journeyman if that hand is in debt to his master." At the beginning of the new year workmen are at liberty to make engagements with other manufacturers if their debts are paid. At the beginning of each year the master shall advance to the journeyman from two to four months' wages. No more wages shall be paid until this sum is worked off.

Apprentices. — The apprentice must give a feast to the guildsmen of the establishment when he starts his work. The apprenticeship lasts for five years, during the last two of which the worker must serve his master as journeyman.

4: Burgess E-4,5 (1926-1927) 1928 AF12 North China AF12

Until this requirement is fulfilled he cannot apply for work elsewhere. If a manufacturer endeavors to get him away, he shall be fined a play and the apprentice shall be compelled to fulfil a years' contract. Apprentices are required to be respectful to journeyman.[1]

Quality of Work Done. — There are regulations fixing both quality and price of paper umbrellas. "Dealers who put on the market defective articles are mulcted to the same extent as if guilty of disposing of ware at less than the established tariff of the trade."[2]

Dyeing.—The Silk Weavers dye their own silk. It is a rule that weaving must be taught first and dyeing next. "A theatrical performance is the penalty for disregard of this rule." "No shop shall have more than one apprentice at dyeing at the same time."

Masters.—When a new shop is opened the proprietor shall subscribe $3,000 cash for temple purposes. "Manufacturers shall have but one member of their family learning the art at one time." "A shop of three looms shall have two apprentices, no more." "Quarrels among members are to be settled by arbitration." Suitable fines are imposed for failure to obey this regulation. Any pewterer who alloys a tin article with lead is amerced by the trade as surely as if he sold articles for less than his fellow craftsmen.

The guild rules pertaining to the fixing of prices and measures are thus described by Gamble:

It has been the gilds, rather than the Government, that have established and maintained trade standards of weight, measure and quality, though the ones adopted by the different gilds have not necessarily been the same. Even now, there are 12, 15 and 16 ounce "catties" in use as standards of weight, the tailor's rule and the carpenter's rule are not the same length, and there

[1] Macgowan, *op. cit.*, pp. 174-5.

[2] *Ibid.*, p. 179.